

**ABSTRACT**

Method and system for controlling access to a communication channel. The method involves calculating an efficiency value for each communication device of a plurality of communication devices, calculating a fairness value for each communication device of the plurality of communication devices, and providing each of the plurality of communication devices with access to the communication channel based on a result of the calculations. The method considers both efficiency and fairness in deciding which of the plurality of communication devices to select thus providing a system designer with the ability to achieve a good compromise between efficiency and fairness. The system includes a slave tracker within a master communication device for performing the calculations and for deciding which of the plurality of slave communication devices to give access to the communication channel.